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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,923	10/10/2008	Christoph Becke	2003P01918WOUS	9209

46726 7590 09/02/2011
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EXAMINER

ROHRHOFF, DANIEL J

ART UNIT	PAPER NUMBER
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3637

NOTIFICATION DATE	DELIVERY MODE
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09/02/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/582,923	Applicant(s) BECKE ET AL.	
	Examiner DANIEL ROHRHOFF	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 11-30 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 11-30 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-13, 15, 21-23 & 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Caldwell (US patent application publication 2003/0122455).

3. Regarding claim 11, Caldwell discloses a chilled goods support (11) for a cooling device comprising a liquid crystal temperature display (233), wherein a supporting element (22) of the chilled goods support acts as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner (Fig. 3A).

4. Regarding claim 12, Caldwell discloses a chilled goods support wherein the thermal buffer is formed by a frame (22) mounted on a plate (20) of the chilled goods support.

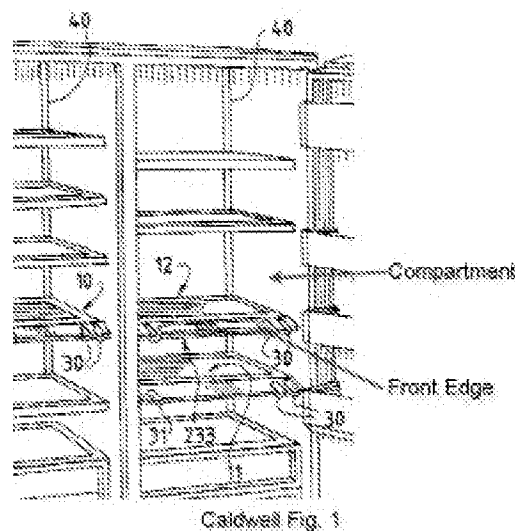
5. Regarding claim 13, Caldwell discloses a chilled goods support wherein the liquid crystal temperature display unit is attached to an outer side of the frame oriented obliquely to the plate (Fig. 3A).

6. Regarding claim 15, Caldwell discloses a chilled goods support wherein the frame is injection molded on the plate in one piece (¶ 26).

7. Regarding claim 21, Caldwell discloses a refrigerator comprising: a housing (100) having side walls (Fig. 1) and a compartment (see annotated Fig. 1) disposed within the

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housing; a door (Fig. 1) coupled to the housing for opening and closing the compartment; a chilled goods support (11) for supporting goods within the compartment and at least partially defining a region within the compartment (Fig. 1), the chilled goods support extending between the side walls and including a front edge (see annotated Fig. 1) facing the door and having a downwardly sloping surface (Fig. 1); and a liquid crystal temperature display unit (233) disposed on the sloping surface of the chilled goods support indicating the temperature within the region (Fig. 3A), wherein a supporting element (22) of the chilled goods support acts as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner (Fig. 3A).



8. Regarding claim 22, Caldwell discloses a refrigerator wherein the chilled goods support includes a plate (20) and a frame (22) extending around the perimeter of the plate.

9. Regarding claim 23, Caldwell discloses a refrigerator wherein the plate is formed from a glass material and the frame is formed from a plastic material injection molded on the plate in one piece (¶ 26).

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10. Regarding claim 28, Caldwell discloses a refrigerator further comprising multiple chilled goods supports (11-13) at least partially defining corresponding regions (Fig. 1) above each chilled goods support, each chilled goods support including a front edge (see annotated Fig. 1) with a downwardly sloping surface and a liquid crystal temperature display unit (233) disposed on the sloping surface, the temperature display unit indicating the temperature within the corresponding region (Fig. 3A), wherein a supporting element (22) of each of the multiple the chilled goods supports acts as a thermal buffer to which its liquid crystal temperature display unit is fixed in a planar manner (Fig. 3A)

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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13. Claims 14 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell.

14. Regarding claim 14, Caldwell discloses the chilled goods support as claimed. Caldwell does not disclose a chilled goods support wherein a portion of the frame which supports the liquid crystal temperature display unit is an extruded profile. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Caldwell wherein a portion of the frame which supports the liquid crystal temperature display unit is an extruded profile. The claim is a product by process claim and the support does not depend on the process of making it. The product by process limitation "wherein a portion of the frame which supports the liquid crystal temperature display unit is an extruded profile" would not be expected to impart distinctive structural characteristics to the support. Therefore the claimed support is not different and unobvious from the support of Caldwell.

15. Regarding claim 16, Caldwell discloses the chilled goods support as claimed. Caldwell does not disclose a chilled goods support wherein the liquid crystal temperature display unit is back-molded with the supporting element. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Caldwell wherein the liquid crystal temperature display unit is back-molded with the supporting element. The claim is a product by process claim and the support does not depend on the process of making it. The product by process limitation "wherein the liquid crystal temperature display unit is back-molded with the supporting element" would not be expected to impart distinctive structural characteristics to the support.

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Therefore the claimed support is not different and unobvious from the support of Caldwell.

16. Claims 17 & 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell in view of Hammarth et al. (US patent application publication 2003/0086474) (hereinafter Hammarth).

17. Regarding claim 17, Caldwell discloses the chilled goods support as claimed. Caldwell does not disclose a chilled goods support wherein the liquid crystal temperature display unit is divided into a plurality of discrete elements, each of the discrete elements having a different color change temperature at which that element changes color. Hammarth teaches a liquid crystal temperature display unit which is divided into a plurality of discrete elements (10, 12, 14, 16 & 18), each of the discrete elements having a different color change temperature at which that element changes color (§ 15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the liquid crystal temperature display of Caldwell wherein the display unit is divided into a plurality of discrete elements, each of the discrete elements having a different color change temperature at which that element changes color as taught by Hammarth, since it would have replaced one known liquid crystal temperature display with another known liquid crystal temperature display and displayed whether or not the temperature fell within an optimum range or above or below the optimum range.

18. Regarding claim 24, Caldwell discloses the refrigerator as claimed. Caldwell does not disclose a refrigerator wherein the liquid crystal temperature display unit is

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divided into a plurality of discrete elements that change color in response to the temperature within the region. Hammarth teaches a liquid crystal temperature display unit which is divided into a plurality of discrete elements (10, 12, 14, 16 & 18) which change color in response to the temperature within the region (¶ 15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the liquid crystal temperature display of Caldwell wherein the display unit is divided into a plurality of discrete elements which change color in response to the temperature within the region taught by Hammarth, since it would have replaced one known liquid crystal temperature display with another known liquid crystal temperature display and displayed whether or not the temperature fell within an optimum range or above or below the optimum range.

19. Claims 18-20 & 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell in view of Paron et al. (US patent 5,738,442) (hereinafter Paron).

20. Regarding claims 18 & 26, Caldwell discloses the chilled goods support as claimed. Caldwell does not disclose a chilled goods support wherein the liquid crystal temperature display unit comprises a display zone in which a transition zone is continuously movable between a low-temperature color and a high-temperature color depending on temperature. Paron teaches a liquid crystal temperature display unit comprising a display zone (18) in which a transition zone is continuously movable between a low-temperature color and a high-temperature color depending on temperature (Col. 2: 42-52 & abstract). It would have been obvious to one of ordinary

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skill in the art at the time of the invention to modify the liquid crystal temperature display of Caldwell wherein the display unit comprises a display zone in which a transition zone is continuously movable between a low-temperature color and a high-temperature color depending on temperature as taught by Paron, since it would have replaced one known liquid crystal temperature display with another known liquid crystal temperature display and displayed where the temperature fell within an optimum range

21. Regarding claims 19 & 27, Caldwell, as modified, teaches a chilled goods support wherein reference marks (Paron: 14) are formed on the supporting element adjacent to the display zone.

22. Regarding claim 20, Caldwell, as modified, teaches a chilled goods support wherein the cooling device comprises an interior enclosed by a heat-insulating housing (Fig. 1).

23. Claims 25 & 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell in view of Hammarth and Maritan et al. (US patent application publication 2003/0222044) (hereinafter Maritan).

24. Regarding claim 25, Caldwell, as modified, teaches the refrigerator as claimed. Caldwell, as modified, does not teach a refrigerator wherein the color of the liquid crystal temperature display unit indicates a type of chilled good that is suitable to be stored on the chilled goods support. Maritan teaches a refrigerator with a support with a display which indicates a type of chilled good that is suitable to be stored on the support (¶ 23). It would have been obvious to one of ordinary skill in the art at the time of the

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invention to modify the display of Caldwell wherein the color of the display indicates a type of chilled good that is suitable to be stored on the support as taught by Maritan, since it would have indicated what shelf was appropriate for storage of a specific good.

25. Regarding claim 29, Caldwell teaches a refrigerator comprising: a housing (100) having side walls (Fig. 1) and a compartment (see annotated Fig. 1) disposed within the housing; a door (Fig. 1) coupled to the housing for opening and closing the compartment; a plurality of chilled goods supports (11-13) extending between the side walls and spaced vertically apart from one another within the compartment (Fig. 1), each chilled goods support at least partially defining a corresponding region above the respective chilled goods support and including a front edge (see annotated Fig. 1) with a downwardly sloping surface (Fig. 1); a liquid crystal temperature display unit (233) disposed on the downwardly sloping surface of each chilled goods support indicating the temperature within the corresponding region (Fig. 1), wherein a supporting element (22) of each of the plurality of chilled goods supports acts as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner (Fig. 3A).

26. Caldwell does not disclose each liquid crystal temperature display unit changing color in response to the temperature within the corresponding region wherein the color of the liquid crystal temperature display unit indicates a type of chilled good that is suitable to be stored on that respective chilled goods support.

27. Hammarth teaches a liquid crystal temperature display unit changing color in response to the temperature (§ 15). Maritan teaches a support with a display which indicates a type of chilled good that is suitable to be stored on the support (§ 23). It

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would have been obvious to one of ordinary skill in the art at the time of the invention to modify the display of Caldwell wherein each display unit changes color in response to the temperature within the corresponding region as taught by Hammarth and wherein the color of the display indicates a type of chilled good that is suitable to be stored on the support as taught by Maritan, since it would have indicated what shelf was appropriate for storage of a specific good.

28. Regarding claim 30, Caldwell, as modified, teaches a refrigerator wherein at least one of the chilled goods supports includes a plate (20) formed from a glass material and a frame (22) extending around the perimeter of the plate and being formed from a plastic material injection molded on the plate in one piece (¶ 26).

Response to Arguments

29. Applicant's arguments filed 7/7/2011 have been fully considered but they are not persuasive.

30. Regarding applicant's argument that Caldwell does not disclose, or even suggest, a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit because there is no passage in Caldwell that discusses a thermal buffer for the display, the examiner disagrees. The examiner maintains that frame 22 acts as a thermal buffer to which the liquid crystal temperature display is fixed.

31. The claim limitation "acts as a thermal buffer" is an intended use of the claimed supporting element and a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art

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structure is capable of performing the intended use, then it meets the claim. The frame 22 of Caldwell is capable of acting as a thermal buffer to the display unit because the display unit is mounted to the frame and the frame acts a buffer between the display and anything else in the environment of the display. Additionally, any planar object with another object mounted it can be considered to be acting as thermal buffer for the mounted object (i.e. if a candle was mounted to a plate, the plate would be acting as a thermal buffer for the candle).

32. Regarding applicant's argument that the previous office action did not make it apparent as to how the frame of Caldwell was acting as a thermal buffer for the display unit and the next office action should not be made final, the examiner disagrees. The previous office action identified the shelf frame 22 to be the claimed supporting element acting as a thermal buffer to the display. Since applicants disclosure teaches the frame of a refrigerator shelf to act as a thermal buffer and Caldwell also teaches a structurally similar frame of a refrigerator shelf with a display mounted to itself, it is apparent from reading both applicants disclosure and Caldwell's disclosure that the frame of Caldwell is capable of acting as a thermal buffer and the rejection is proper.

Conclusion

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it gives a general state of the art.

34. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL ROHRHOFF whose telephone number is (571)270-7624. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darnell Jayne can be reached on 571-272-7723. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. R./
Examiner, Art Unit 3637
8/24/11

/JANET M WILKENS/
Primary Examiner, Art Unit 3637